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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/647,402

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Yoshitaka Ito

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EXAMINER

SHAPIRO, JEFFERY A

ART UNIT

PAPER NUMBER

3653

MAIL DATE

DELIVERY MODE

09/13/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/647,402

Applicant(s)

ITO, YOSHITAKA

Examiner

Jeffrey A. Shapiro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2007.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 1 recites the limitation "guiding roller" in line 26. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 3, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sagady (US 6,155,398) in view of Matuura et al (US 4,795,889), further in view of Kawasaki (US 4,895,358) and still further in view of Arimoto (US 4,365,700).

Regarding Claims 1, 3 and 19, Sagady discloses vending machine (1) that intakes tokens through token slot (50), dispenses tokens through token dispense opening (80), and intakes banknotes through banknote slot (60). The banknote

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validator (100), coin validator (110), display and payout unit are all connected to controller (130) and are stacked in a column. See col. 3, lines 20-31. Regarding Claims 2 and 3, note figure 5 that illustrates the validator (100) and coin validator (110) as box-shaped structures.

Sagady does not expressly disclose, but Matuura discloses a combination banknote validator (150) and banknote dispenser, said validator/dispenser having modular components, and a controller (10).

Regarding Claim 1, Matuura further discloses a safe for banknotes (131, 111, 121, 181), banknote discharging/transporting sections (161, 165, etc.), wherein the banknote reject storing section (181) is located under a banknote supply storage section. See figure 4.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have used the combination banknote validator and dispenser of Matuura in place of Sagady's banknote validator.

The suggestion/motivation would have been to increase reliability and serviceability by incorporating an automatic bill box refilling operation without affecting the next transaction. See Matuura, col. 1, lines 39-45.

Sagady does not expressly disclose, but Arimoto discloses length sensors (53A-D). See Arimoto, col. 6, lines 11-26 and col. 12, lines 49-53.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have used a length sensor, as taught by Arimoto, in Sagady's banknote dispenser/validator.

The suggestion/motivation would have been to discriminate banknotes using length of the note as a criterion. See Arimoto, col. 1, lines 49-53.

Regarding Claims 2 and 20, Sagady does not expressly disclose, but Kawasaki discloses a bill cassette of a trapezoidal shape stacking bills in a non-horizontal manner. See Kawasaki, figure 1.

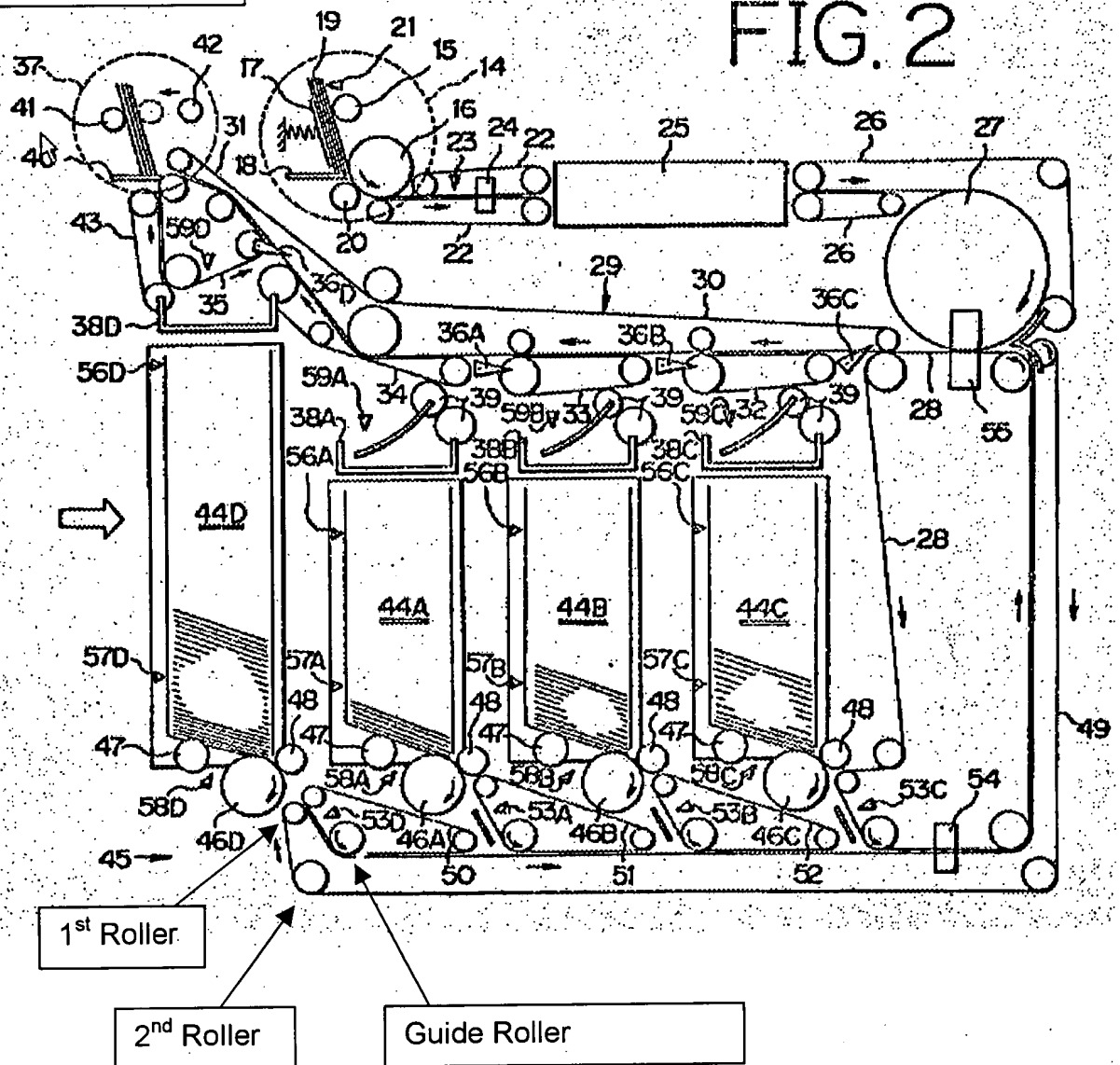
At the time of the invention, it would have been obvious to one of ordinary skill in the art to have used Kawasaki's trapezoidal banknote cassette in Sagady's banknote dispenser/validator.

The suggestion/motivation would have been to reduce maintenance, for example. See Kawasaki, col. 1, lines 25-30 and 58-63.

Further, regarding Claims 1 and 19, Sagady does not expressly disclose, but Arimoto teaches using various transportation devices, including U-shaped transporter (28, 49), for the purpose of bringing notes to the bill dispensing opening or from the bill intake, as needed. Note that U-shaped transporter (28, 49) also has a bill length sensor located at (53c). Note that the U-shaped passageway includes a first roller, a second transporting roller, and a guiding roller. See annotated figure 2 of Arimoto, shown below.

Annotated figure 2

FIG. 2



At the time of the invention, it would have been obvious to one of ordinary skill in the art to have added various transportation devices, including an inverted U-shaped transporter as taught by Arimoto, in the bill dispensing/receiving apparatus of Sagady, for the purpose of transporting bills from a trapezoidal-shaped bill storage area.

Note that it would have been obvious to place bill length sensors at any place in which genuiness of bills is required to be determined or where the knowledge of length of bills processed is necessary to cause adjustments to the device for smooth operation. Therefore, it would have been obvious to add a length sensor within U-shaped transporter (28, 49) as described by Arimoto, so as to insure the bill length is correct going into or out of a bill storage area.

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sagady (US 6,155,398) in view of Matuura et al (US 4,795,889), further in view of Kawasaki (US 4,895,358), further in view of Arimoto (US 4,365,700) and still further in view of Haney et al (US 6,682,068). Sagady discloses the system described above. Arimoto discloses the transportation device (28, 49) as described with relation to Claims 1 and 19, said rejection over Arimoto incorporated by reference to the above discussion.

As recited in Claim 4, Sagady does not expressly disclose, but Haney discloses a one-way clutch (176 and 484) mechanism for feeding banknotes by stripping them from or to a stack in a storage section. See Haney, col. 15, lines 26-38 and col. 31, lines 10-25.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have used a stripping mechanism, as taught by Haney, in Sagady's banknote dispensing system.

The suggestion/motivation would have been to strip banknotes from a stack or to a stack located in a cassette. See Haney, col. 15, lines 26-38 and col. 31, lines 10-25.

5. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sagady (US 6,155,398) in view of Matuura et al (US 4,795,889) and further in view of Kawasaki (US 4,895,358), further in view of Arimoto (US 4,365,700), further in view of Haney et al (US 6,682,068) and still further in view of Winstanley (US 5,400,891).

Sagady discloses the system described above. Sagady does not expressly disclose, but Winstanley discloses a coin validator (2) having an opening on the rear portion thereof to allow for automatic resupply by an automatic resupply device. Note that Winstanley's cassette (14) allows resupply by its placement in an automatic resupply device. After resupply, said cassette can be replaced in the validator.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have used a coin validator cassette in Sagady's coin validator, as taught by Winstanley.

The suggestion/motivation would have been to provide for flexibility in servicing a coin validator. See Winstanley, col. 2, lines 5-10.

Regarding Claim 6, note that Sagady's banknote dispensing unit and token dispensing unit are considered to be removable from an inside chassis as are Saltsov's combination unit.

6. Claims 7-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sagady (US 6,155,398) in view of Matuura et al (US 4,795,889) and further in view of Kawasaki (US 4,895,358), further in view of Arimoto (US 4,365,700), further in view of Haney et al (US 6,682,068), further in view of Winstanley (US 5,400,891) and still further in view of Cole (US 6,860,814 B2).

Sagady discloses the system above. Sagady does not expressly disclose, but Cole discloses, a door (34) with hinges (36) and a lock (74). Regarding Claims 7-11, it would have been obvious for Sagady's vending machine to have a first door with an appropriate lock and hinges, since the vending machine must be accessed during servicing while maintaining security at all other times.

Regarding Claims 12-17, note that it would have been obvious to provide a second or third door with appropriate locks and hinges so as to secure various portions of the vending machine internals as would be required by the security needs of the vending machine.

See Cole, col. 4, lines 22-37 and col. 7, lines 40-45.

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sagady (US 6,155,398) in view of Saltsov et al (US 6,371,473 B1) and further in view of Arimoto (US 4,365,700).

Sagady discloses vending machine (1) that intakes tokens through token slot (50), dispenses tokens through token dispense opening (80), and intakes banknotes through banknote slot (60). The banknote validator (100), banknote store (105) coin validator (110), display and payout unit are all connected to controller (130) and are

stacked in a column. See col. 3, lines 20-31. Figure 5 illustrates the validator (100) and coin validator (110) as box-shaped structures that constitute first and second compartments.

Note that the banknote dispensing guide located at the lower side of the banknote dispensing unit, said dispensing guide protruding out the front face of the housing. See figure 5, for example.

Note that the token dispensing port (80) protrudes from the housing and is located on the lower side of the token dispensing unit.

Note that the token dispensing unit (110) and the bill dispensing unit (100 and 105) can be construed to be located in 1st and 3rd compartments. As a comparison, elements (130 and 120) can be construed as being in 2nd and 4th compartments.

Sagady does not expressly disclose, but Saltsov discloses a combination banknote validator and banknote dispenser, said validator/dispenser having modular components.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have used the combination banknote validator and dispenser of Saltsov in place of Sagady's banknote validator.

The suggestion/motivation would have been to increase reliability and serviceability by using modular design as well as to prevent banknote jamming. See Saltsov, col. 1, lines 29-60 and col. 9 line 51-col. 10, line 2.

Regarding an inverted U-shaped passageway, Saltsov can be construed as having such a passageway at element (850) shown in figure 29.

Further, regarding Claim 18, Sagady does not expressly disclose, but Arimoto teaches using various transportation devices, including U-shaped transporter (28, 49), for the purpose of bringing notes to the bill dispensing opening or from the bill intake, as needed. Note that U-shaped transporter (28, 49) also has a bill length sensor located at (53c). Note that the U-shaped passageway includes a first roller, a second transporting roller, and a guiding roller. See annotated figure 2 of Arimoto, shown below.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to have added various transportation devices, including an inverted U-shaped transporter as taught by Arimoto, in the bill dispensing/receiving apparatus of Sagady, for the purpose of transporting bills from a trapezoidal-shaped bill storage area. Note that it would have been obvious to place bill length sensors at any place in which genuineness of bills is required to be determined or where length of bills is necessary to smooth operation of the device. Therefore, it would have been obvious to add a length sensor within U-shaped transporter (28) as described by Arimoto, so as to insure the bill length is correct going into or out of a bill storage area.

Response to Arguments

8. Applicant's arguments filed 7/11/07 have been fully considered but they are not persuasive.

Applicant asserts that Sagady does not overcome the claims and newly added claim limitations. However, as discussed above, Sagady in combination with Matuura,

Kawasaki, Arimoto, Haney and Winstanley provide disclosure, teaching and suggestion which reads on Applicant's claim limitations.

Although Sagady does not expressly disclose an inverted U-shaped passage, Arimoto includes an inverted U-shaped passage, such as transporter (28, 49) in a bill handling device for the purpose of transporting bills away from the outlet of the bill storage area. This U-shaped passage also incorporates a length sensor (53C) within its bounds. In so much as Applicant's U-shaped passage (40) is U-shaped, Arimoto's passage is also shaped as an inverted U. Arimoto discloses a first roller, second roller and guide roller, as called for in Applicant's independent claims. See annotated figure 2 of Arimoto, above. It would have been obvious to use Arimoto's transporter to transport bills from a trapezoidal storage area, as shown in Arimoto's figure 2, since it is necessary to remove bills from said storage area.

Regarding Claim 4, Kawasaki provides motivation and teaching for stacking bills vertically in a trapezoidal-shaped storage area, for the purpose of keeping a constant contact pressure so as to reduce maintenance.

Regarding Claim 18, Arimoto has been applied to Sagady in a similar way with regards to Claims 1 and 19 above.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey A. Shapiro whose telephone number is (571)272-6943. The examiner can normally be reached on Monday-Friday, 9:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick H. Mackey can be reached on (571)272-6916. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

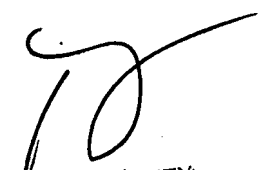
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Jeffrey A. Shapiro
Examiner
Art Unit 3653

September 10, 2007



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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600